FEB 1 7015

Wereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to:

MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA

(Joanne Ryan)

IFW

Docket No.: BBNT-P01-015

(PATENT)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

22313-1450, on the date shown below.

Pearson et al.

Application No.: 10/799177

Confirmation No.: 8150

Filed: March 12, 2004

Art Unit: 2661

For: SYSTEMS AND METHODS FOR

Examiner: Not Yet Assigned

IMPLEMENTING ROUTING PROTOCOLS AND ALGORITHMS FOR QUANTUM CRYPTOGRAPHIC KEY TRANSPORT

## **INFORMATION DISCLOSURE STATEMENT (IDS)**

MS Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom. Applicants call the Examiner's attention to co-pending, co-owned patent applications 10/803509 filed on March 18, 2004; and 09/611783 filed on July 7, 2000, of which subject matter is related to that of the above-referenced patent application, and in which one or more office actions may have issued.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

A copy of each non-patent reference on the PTO/SB/08 is attached.

Application No.: 10/799177 Docket No.: BBNT-P01-015

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 18-1945, under Order No. BBNT-P01-015.

Dated: February 8, 2005

Respectfully submitted,

Edward A. Gordon

Registration No.: 54,130

ROPES & GRAY LLP

One International Place

Boston, Massachusetts 02110-2624

(617) 951-7000

(617) 951-7050 (Fax)

Attorneys/Agents For Applicant

Examiner

PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE ns are required to respond to a collection of information unless it contains a valid OMB control number.

Sut	Substitute for form 1449A/B/PTO			Complete if Known		
-		•		Application Number	10/799177	
11	FORMATION	N DI	SCLOSURE	Filing Date	March 12, 2004	
S	TATEMENT I	BY A	APPLICANT	First Named Inventor	David S. Pearson	
				Art Unit	2661	
	(Use as many sh	eets as	necessary)	Examiner Name	Not Yet Assigned	
Sheet	1	of	2	Attorney Docket Number	BBNT-P01-015	

			U.S. PA	TENT DOCUMENTS	
Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant
Initials*	No.1	Number-Kind Code <sup>2</sup> ( if known)	MM-DD-YYYY	Applicant of Cited Document	Figures Appear
	AA	US-5,243,649	09-07-1993	Franson	
	AB	US-5,339,182	08-16-1994	Kimble et al	
	AC	US-5,414,771	05-09-1995	Fawcett, Jr.	
	AD	US-5,502,766	03-26-1996	Boebert et al	
	AE	US-5,675,648	10-07-1997	Townsend	
	AF	US-5,710,773	01/1998	Shiga, Tomohisa	
	AG	US-5,732,139	03-24-1998	Lo et al	
	AH	US-5,757,912	05-26-1998	Blow	
	Al	US-5,764,765	06-09-1998	Phoenix et al	
	AJ	US-5,768,391	06-16-1998	Ichikawa	
	AK	US-5,768,378	06-16-1998	Townsend et al	
	AL	US-5,805,801	09/1998	Holloway et al	
	AM	US-5,850,441	12-15-1998	Townsend et al	
	AN	US-5,953,421	09-14-1999	Townsend	
	AO	US-5,966,224	10-12-1999	Hughes et al	
	AP	US-6,122,252	09/2000	Aimoto et al	
	AQ	US-6,233,075	05/2001	Chang et al	
	AR	US-6,233,393	05/2001	Yanagihara et al	
	AS	US-6,463,060	10/2002	Sato et al	
	AT	US-6,563,796	05/2003	Saito, Hiroshi	
	AU	US-6,684,335	01/2004	Epstein et al.	

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
	No.1	Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)		Applicant of Cited Document			
		·				T	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ¹For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

		NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.1	The magazine journal corral exempleium catalog etc.) date page(c) volume icque number(c) publicher eit			
	CA	Laser End-Point-Detection System. IBM Technical Disclosure Bulletin. 28:7, 3151-53. (1985)			
	СВ	Quantum Public Key Distribution System. IBM Technical Disclosure Bulletin. 28:7, 3154-63. (1985)			
	CC	Collins, Graham P. Quantum Cryptography Defies Eavesdropping. Physics Today. pp 21-3 (1992)			
	CD	Townsend et al. Single Photon Interference in 10km Long Optical Fibre Interferometer. Electronics Letters. 29:7, 634-35. (1993)			

Date

PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO				Complete if Known		
				Application Number	10/799177	
IN	<b>IFORMATIO</b>	N DI	SCLOSURE	Filing Date	March 12, 2004	
STATEMENT BY APPLICANT				First Named Inventor	David S. Pearson	
				Art Unit	2661	
	(Use as many s	heets as	necessary)	Examiner Name	Not Yet Assigned	
heet	2	of	2	Attorney Docket Number	BBNT-P01-015	

CE	Townsend et al. Enhanced Single Photon Fringe Visibility in A 10 km-Long Prototype Quantum Cryptography Channel. Electronics Letters. 29:14, 1291-93. (1993)	
CF	Townsend, P.D. Secure key distribution system based on quantum cryptography. Electronics Letters. 30:10, 809-11. (1994)	
CG	Phoenix, Simon J.D. et al. Multi-user quantum cryptography on optical networks. Journal of Modern Optics. 42:6, 1155-63. (1995)	
СН	Franson, J.D. Violations of a New Inequality for Classical Fields. Johns Hopkins University; NTIS-NASA Publication; Goddard Space Flight Center; Workshop on Squeezed States and Uncertainty Relations. pp 23-32. (1991)	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Examiner	/Handy Canal	Date	00/04/0000
Signature	/Hosuk Song/	Considered	02/04/2009

<sup>&</sup>lt;sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Application No. (if known): 10/799177 Attorney Docket No.: BBNT-P01-015

## Certificate of Mailing under 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

MS Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

on February 8, 2005

Date

Signature

Joanne Ryan

Typed or printed name of person signing Certificate

Registration Number, if applicable

Telephone Number

Note: Each paper must have its own certificate of mailing, or this certificate must identify each submitted paper.

Information Disclosure Statement (2 pages)
Form PTO SB/08 (29 References)
Deposit Account 18-1945
Return receipt postcard

9644847.1